

# Revision of Indian Spiders of the genus *Cyrtarachne* (Argiopidae : Arachnida)

BY

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(With five text-figures)

## INTRODUCTION

The Oriental spiders of the genus *Cyrtarachne* were first described by Thorell (1895). Pocock (1900) recorded two known species of the genus and described one new species.

Two known and three new species in the collections of the Zoological Survey of India are described in this paper.

## Family ARGIOPIDAE

### Genus *Cyrtarachne* Thorell

(Type: *Cyrtogaster grubei* Keyserling, 1864)

- 1868. *Cyrtarachne*, Thorell, EUG. RESA. ZOOL. ARACH. p. 10.
- 1895. *Cyrtarachne*, Simon, HIST. NAT. ARAIGN. 1, p. 880.
- 1895. *Cyrtarachne* Thorell, SPIDERS OF BURMA, p. 201.
- 1900. *Cyrtarachne*, Pocock, FAUNA OF BRITISH INDIA, ARACHNIDA p. 228.

This genus was erected by Thorell to include *Cyrtogaster grubei* Keyserling, 1864. The name *Cyrtogaster* being preoccupied in Keyserling, Thorell proposed *Cyrtarachne* in the year 1868. He has given a detailed diagnosis in his book SPIDERS OF BURMA.

*Characters.* Carapace unarmed, convex, median eyes not very prominent, the ocular quadrangle generally slightly wider than long, laterals contiguous. Abdomen large, wider than long, integument leathery, strongly overlapping the posterior region of cephalothorax in front. Chelicerae subapically with outer row of large teeth, which differ in size and inner row of variable number of smaller teeth.

Distribution. Mediterranean, Ethiopian, Oriental, and Australian Regions.

## KEY TO INDIAN SPECIES

- |   |                                |
|---|--------------------------------|
| 1. Abdomen pointed behind .. ..   | 2.                             |
| Abdomen not pointed behind .. ..  | 3.                             |
| 2. Abdomen with black patch below, vulva triangular .. ..   | <i>C. inaequalis</i>           |
| Abdomen with no black patch below, vulva with a short narrow tubercle .. ..   | <i>C. raniczps</i>             |
| 3. Abdomen chocolate colour, with white patch antero-laterally, vulva kidney-shaped .. ..   | <i>C. bengalensis</i> sp. nov. |
| Abdomen yellowish with all sigilla encircled by black patch, vulva almost rounded at the base provided with two blunt tubercles .. ..             | <i>C. gravelyi</i> sp. nov.    |
| Abdomen light yellowish grey, armed above with symmetrically placed tooth-like tubercles. Vulva rounded at the base but apically triangular .. .. | <i>C. biswamoyi</i> sp. nov.   |

## LIST OF SPECIES

*Cyrtarachne inaequalis* Thorell

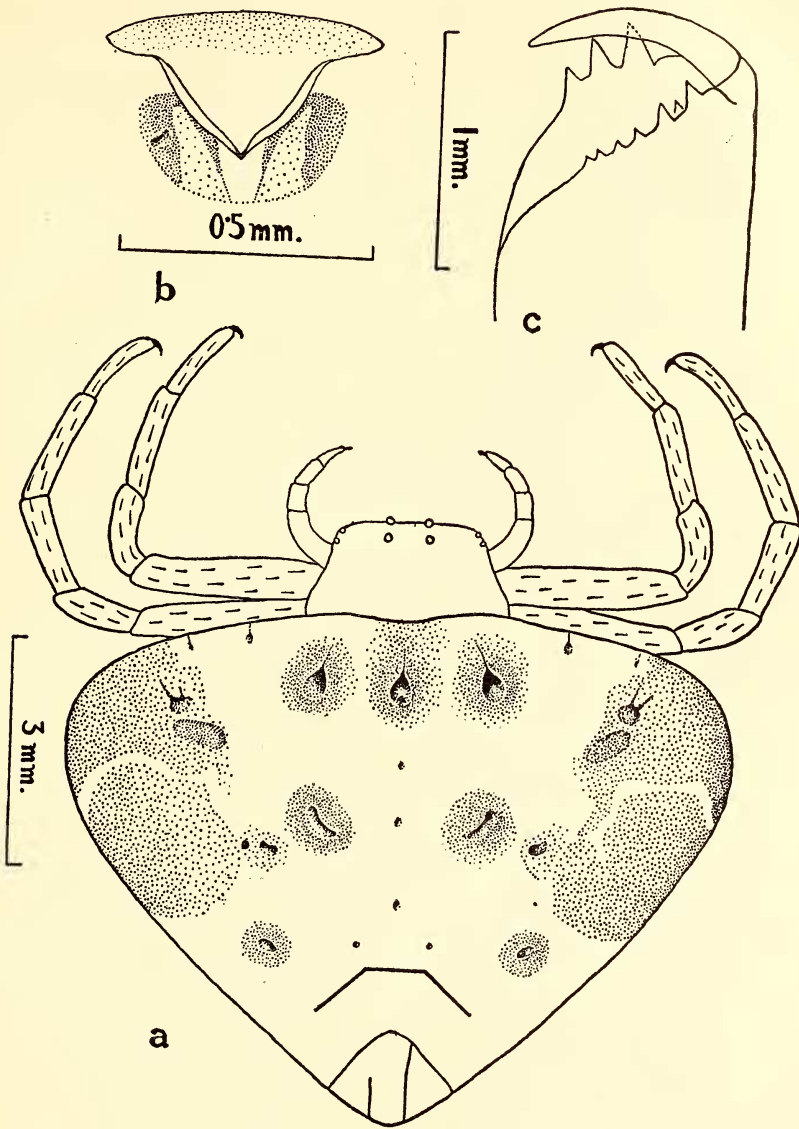
1895. *Cyrtarachne inaequalis* Thorell, SPIDERS OF BURMA, London. p. 201.  
(Type-locality : Tounghoo, Burma.)
1900. *Cyrtarachne inaequalis*, Pocock, FAUNA OF BRITISH INDIA, ARACHNIDA p. 229.

*Material.* 2 ♀ ♀, from Botanical Garden, Sibpur, Dist. Howrah, West Bengal. Coll. B. K. Tikader, 11-11-1956; 2 ♀ ♀, from Muki, Dist. Balaghat, Madhya Pradesh. Coll. B. K. Tikader, 9-10-1957.

*General.* Cephalothorax ochre-yellow, abdomen yellowish, legs brownish. Total length 10.50 mm.; carapace 3.50 mm. long, 3.20 mm. wide; abdomen 9.10 mm. long, 11.00 mm. wide.

*Cephalothorax.* Relatively broader in front, slightly longer than wide. The area of four median eyes slightly elevated. Clypeus narrow. Chelicerae subapically with outer row of 3 large teeth and inner row first and third teeth large and rest smaller. Text-fig. 1, c. Sternum heart-shaped. Legs stout, clothed with hairs.

*Abdomen.* Triangular, strongly overlapping the posterior region of cephalothorax in front; wider than long, anterior lateral surface bulging out into a smooth conical prominence and furnished with a dark brown patch. Ventral surface of the abdomen black behind the epigastric fold. Epigyne triangular at the base but apically pointed. Text-fig. 1, b.



Text-fig. 1. *Cyrtarachne inaequalis* Thorell  
(a) Dorsal view of whole body; (b) Epigyne; (c) Chelicera

*Distribution.* Burma: Tounghoo and Tharrawaddy.  
India: West Bengal; Balaghat Dist., Madhya Pradesh.

**Cyrtarachne raniceps** Pocock

1900. *Cyrtarachne raniceps* Pocock, FAUNA OF BRITISH INDIA, ARACHNIDA p. 229. (Type-locality : Ceylon.)

*Material.* 1 ♀, with cocoon from Habra c. 48 kilometres north-east of Calcutta, West Bengal. Coll. B. K. Tikader, 7-9-1958.

*General.* Cephalothorax and abdomen ochre-yellowish brown, legs greenish. Total length 9.30 mm.; carapace 2.50 mm. long, 2.00 mm. wide; abdomen 9.00 mm. long, 11.70 mm. wide.

*Cephalothorax.* Relatively broader in front, slightly longer than wide. Median eyes more or less equal in size and laterals slightly smaller than medians; ocular quad as long as wide. Clypeus narrow. Chelicerae subapically with outer row of 3 large teeth and inner row first tooth large and rest smaller. Text-fig. 2, c. Sternum heart-shaped. Legs stout, clothed with hairs.

*Abdomen.* Wider than long, triangular, strongly overlapping the posterior region of cephalothorax in front; broadest in its anterior half, where it bulges out laterally into a large smooth conical prominence, the lateral prominences amber or deep brown at the tip, partially surrounded at the base by dark brown and pale lines. Ventral side of abdomen more yellowish than dorsal. Epigyne with scape in the form of a short narrow tubercle. Text-fig. 2, b.

*Distribution.* Ceylon.

India: West Bengal.

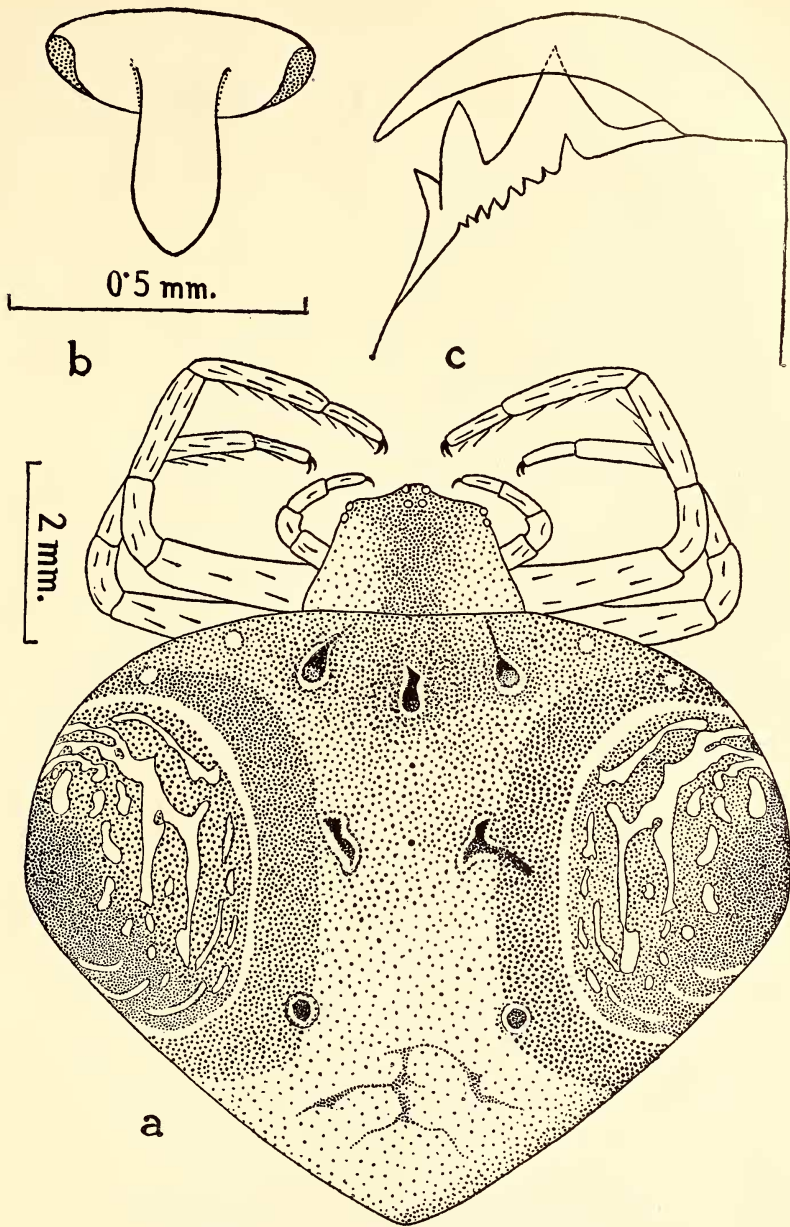
**Cyrtarachne bengalensis** sp. nov.

*Material.* 2 ♀ ♀, from Botanical Garden, Sibpur, Dist. Howrah, West Bengal. Coll. B. K. Tikader, 11-11-1956.

*General.* Cephalothorax and legs chocolate in colour, abdomen slightly paler than cephalothorax. Total length 7.20 mm.; carapace 2.00 mm. long, 1.20 mm. wide; abdomen 6.00 mm. long, 8.00 mm. wide.

*Cephalothorax.* Relatively broader in front, slightly longer than wide. Ocular quad square, lateral eyes slightly smaller than medians. Clypeus narrow. Chelicerae subapically with outer row of three large teeth and inner row of three small teeth. Text-fig. 3, c. Sternum heart-shaped, pointed behind. Legs short, clothed with hairs.

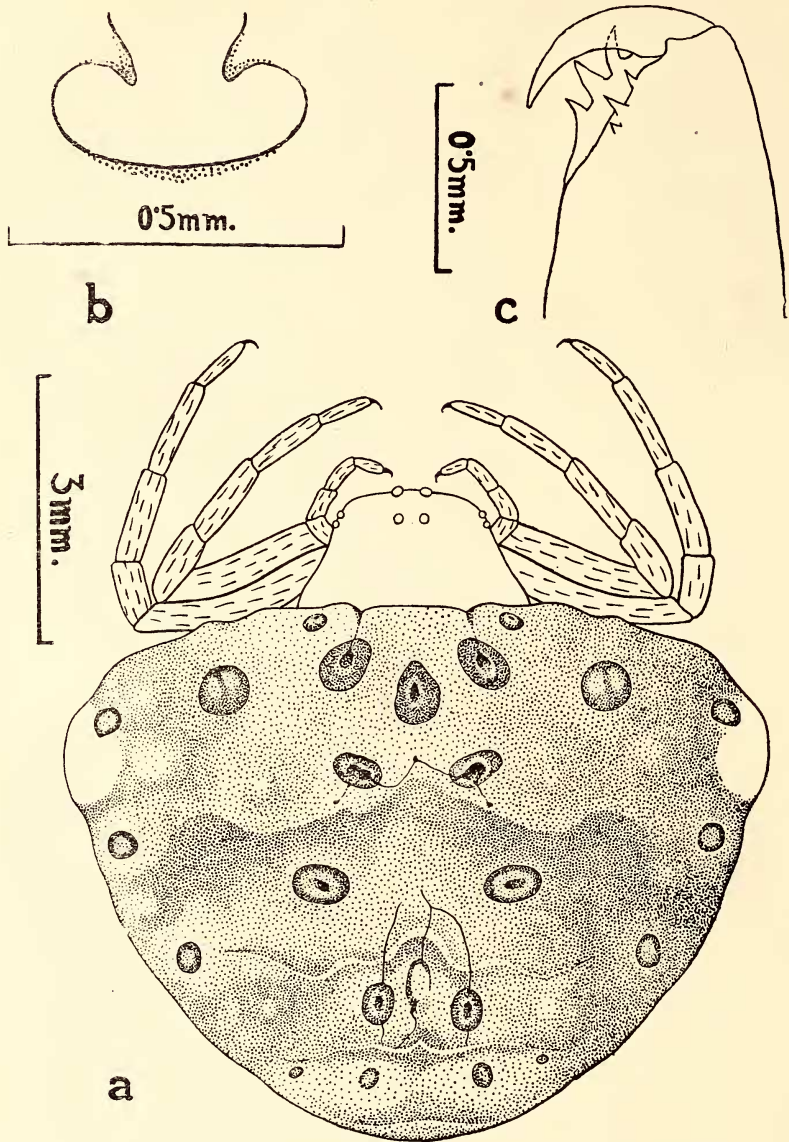
*Abdomen.* Moderately rounded posteriorly, strongly overlapping the posterior region of cephalothorax in front, wider than long, anterior lateral surface slightly bulging out into a smooth prominence and furnished with a white patch. Epigyne broad elongated at the base but apically kidney-shaped. Text-fig. 3, b.



Text-fig. 2. *Cyrtarachne raniceps* Pocock  
(a) Dorsal view of whole body; (b) Epigyne; (c) Chelicera

*Holotype*. One female in spirit in the National Zoological Collections, Zoological Survey of India, Calcutta.

This species resembles *Cyrtarachne cingulata* Thorell, but is



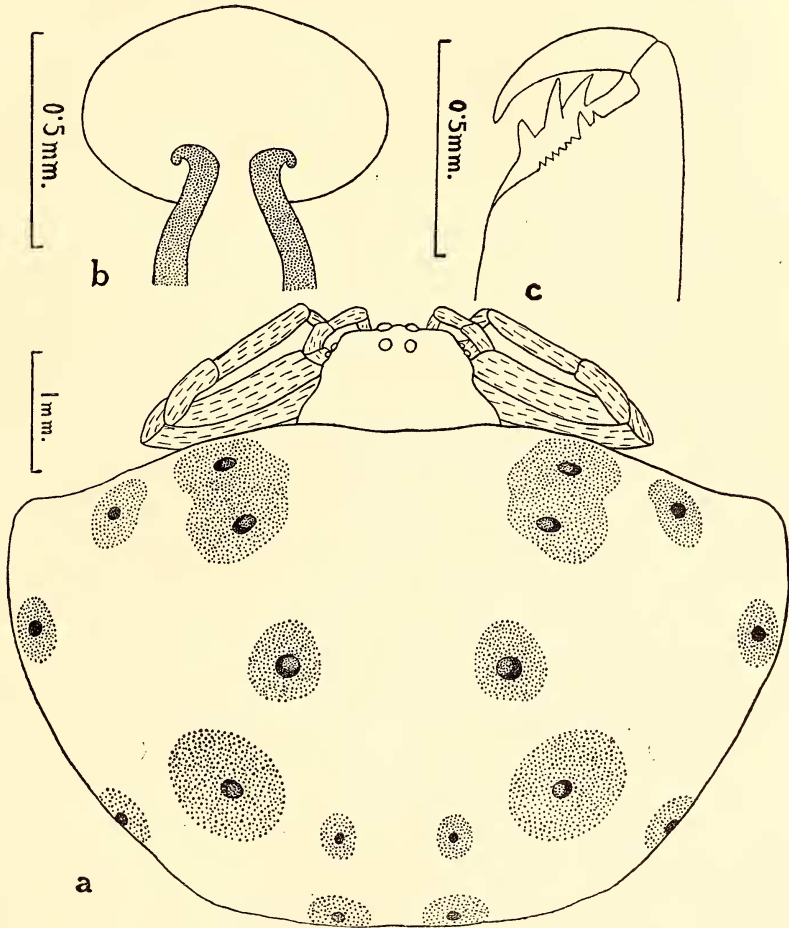
Text-fig. 3. *Cyrtarachne bengalensis* sp. nov.  
(a) Dorsal view of whole body; (b) Epigyne; (c) Chelicera

separated as follows: (i) Abdomen pale chocolate-coloured, moderately rounded posteriorly and anterior lateral extremities with a white patch but in *C. cingulata* abdomen black, widely rounded posteriorly and with a broad yellow ring narrowly interrupted below round its lateral extremities.

*Cyrtarachne gravelyi* sp. nov.

*Material.* 1 ♀, from Pashok, Darjeeling District, West Bengal. Coll. F. H. Gravely, 26-5-1916.

*General.* Cephalothorax and legs light yellowish, abdomen ochre-yellow. Total length 6.00 mm.; carapace 1.60 mm. long, 1.50 mm. wide; abdomen 5.00 mm. long, 7.30 mm. wide.



Text-fig. 4. *Cyrtarachne gravelyi* sp. nov.  
 (a) Dorsal view of whole body; (b) Epigyne; (c) Chelicera

*Cephalothorax.* Relatively broader in front, slightly longer than wide. Cephalic region high, median eyes more or less equal in size and ocular quad as long as wide, lateral eyes small and contiguous. Chelicerae subapically with outer row of three large teeth and inner

row first two teeth large and rest smaller. Text-fig. 4, c. Clypeus narrow. Sternum heart-shaped. Legs short and stout, clothed with hairs.

*Abdomen.* Large, nearly twice as broad as long, widely rounded posteriorly; strongly overlapping the posterior region of cephalothorax in front. All sigilla encircled by black patches. Ventral surface of abdomen deep brown behind the epigastric fold. Epigyne more or less rounded at the base provided with two blunt tubercles. Text-fig. 4, b.

*Holotype.* One female in spirit in the National Zoological Collections, Zoological Survey of India, Calcutta.

This species is closely related to *C. cingulata* Thorell, but differs as follows: (i) Abdomen ochre-yellow, all sigilla encircled by black patches but in *C. cingulata* abdomen black, all sigilla encircled by white patches and with a broad yellow ring narrowly interrupted below round its lateral extremities.

#### **Cyrtarachne biswamoyi sp. nov.<sup>1</sup>**

*Material.* 6 ♀ ♀, from Muki, District Balaghat, Madhya Pradesh. Coll. B. K. Tikader, 9-10-1957.

*General.* Cephalothorax and legs yellowish, abdomen light yellowish grey. Total length 6.20 mm.; carapace 2.60 mm. long, 2.00 mm. wide; abdomen 5.00 mm. long, 8.90 mm. wide.

*Cephalothorax.* Relatively broad in front, slightly longer than wide, scantily clothed with hairs. Median eyes more or less equal in size and ocular quad slightly longer than wide, laterals small and contiguous. Chelicerae subapically with outer row of three large teeth and inner row two median teeth. Text-fig. 5, c. Clypeus narrow. Sternum heart-shaped. Legs short and stout, clothed with hairs.

*Abdomen.* Large, armed above with a few symmetrically placed tooth-like tubercles, nearly twice as broad as long, widely rounded posteriorly; strongly overlapping the posterior region of cephalothorax in front. Almost all sigilla yellow in centre and encircled by black patch. Epigyne more or less rounded at the base but apically triangular. Text-fig. 5, b.

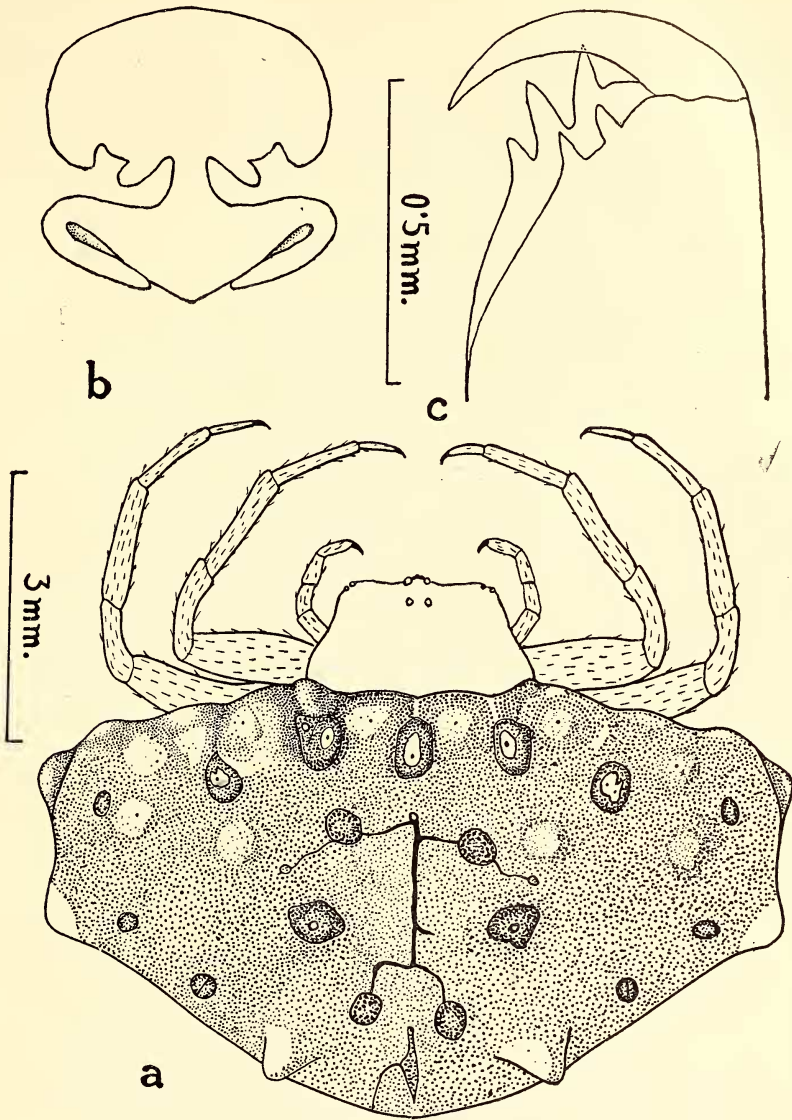
*Holotype.* One female in spirit in the National Zoological Collections, Zoological Survey of India, Calcutta.

This species is closely related to *C. cingulata* Thorell, but differs

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<sup>1</sup>I have pleasure in naming this after Dr. Biswamoy Biswas, Ornithologist, Zoological Survey of India, Calcutta.





Text-fig. 5. *Cyrtarachne biswamoyi* sp. nov.

(a) Dorsal view of whole body; (b) Epigyne; (c) Chelicera

as follows: (i) Abdomen light yellowish grey, sigilla yellow in centre and encircled by black patch but in *C. cingulata* abdomen black, sigilla black in centre and encircled by white patch. (ii) Abdomen armed above with a few symmetrically placed tooth-like tubercles but in *C. cingulata* abdomen rounded and smooth.

SUMMARY

Three new and two known species of Indian spiders of the genus *Cyrtarachne*, family Argiopidae are described in this paper. All species were collected from West Bengal and Madhya Pradesh, India. All the type specimens are in the Zoological Survey of India, Calcutta.

ACKNOWLEDGEMENTS

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| Simon, E. (1895) : Hist. Nat. Araign. Paris, 1 : 880.                              | — — — (1895) : Spiders of Burma, London, pp. 201-207. |